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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,517

03/30/2004

Thomas J. Foster

H10532/JDP

3309

1333

7590

09/20/2006

PATENT LEGAL STAFF
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EXAMINER

SCHLACK, SCOTT A

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,517

Applicant(s)

FOSTER ET AL.

Examiner

Scott A. Schlack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

DOUGLAS Q. TRAN
PRIMARY EXAMINER

Tran

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 09/26/2005, 06/24/2005.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims **1-41** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **1-41** of copending Application No. 10/812,605. Although the conflicting claims are not identical, they are not patentably distinct from each other. Below is a listing of the claim equivalencies (from the current application 10/812,517 to copending application 10/812,686) with minor obvious variations disclosed.

Claim 1: Claim 1 of copending app	Claim 22: Claim 26 of copending app
Claim 2: Claim 3 of copending app	Claim 23: Claim 27 of copending app
Claim 3: Claim 4 of copending app	Claim 24: Claim 29 of copending app
Claim 4: Claim 5 of copending app	Claim 25: Claim 30 of copending app
Claim 5: Claim 6 of copending app	Claim 26: Claim 31 of copending app
Claim 6: Claim 7 of copending app	Claim 27: Claim 32 of copending app
Claim 7: Claim 8 of copending app	Claim 28: Claim 33 of copending app
Claim 8: Claim 9 of copending app	Claim 29: Claim 34 of copending app
Claim 9: Claim 11 of copending app	Claim 30: Claim 2 of copending app
Claim 10: Claim 12 of copending app	Claim 31: Claim 10 of copending app
Claim 11: Claim 13 of copending app	Claim 32: Claim 17 of copending app
Claim 12: Claim 14 of copending app	Claim 33: Claim 20 of copending app
Claim 13: Claim 15 of copending app	Claim 34: Claim 28 of copending app

Claim 14: Claim 16 of copending app	Claim 35: Claim 35 of copending app
Claim 15: Claim 18 of copending app	Claim 36: Claim 36 of copending app
Claim 16: Claim 19 of copending app	Claim 37: Claim 37 of copending app
Claim 17: Claim 21 of copending app	Claim 38: Claim 38 of copending app
Claim 18: Claim 22 of copending app	Claim 39: Claim 39 of copending app
Claim 19: Claim 23 of copending app	Claim 40: Claim 40 of copending app
Claim 20: Claim 24 of copending app	Claim 41: Claim 41 of copending app
Claim 21: Claim 25 of copending app	

3. The examiner notes that the claims of the copending application 10/812,605, would be exact replicas to that of the current application, with exception to the fact that they do not specifically disclose wherein in the method of printing an image, the printer has magnetic ink character recognition (MICR) toning capability. MICR toning capability was well known at the time of the invention to those skilled in the art, and therefore the examiner views this feature and any other minor inconsistencies to be obvious variations of the same invention, which in no way change the scope of the invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **1, 4-8, 11-16, 19-23** and **26-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bares (US 5,057,936) in view of Flickner (US 4,791,676).

6. With respect to claim **1**, Bares discloses printing an image from a printer having magnetic-ink character recognition (MICR) toning capability (col 1, lines 39-43) and converting an image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information (col 3, lines 12-17);

The examiner notes that a digital bitmap is inherently comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information.

Bares does not disclose defining each pixel as either a background pixel, interior pixel, or an edge pixel; and, reassigning the digital value of one or more edge pixels or interior pixels independently, thereby altering the concentration of magnetizable substances within the image when printed in order to improve the readability of printed characters by reading instrumentation.

Flickner does disclose defining each pixel (col 2, lines 44-64 and col 3, lines 55-66) as either a background pixel, interior pixel, or an edge pixel (col 3, line 55 to col 4, line 33 and col 6, lines 18-26); and, reassigning the digital value of one or more edge pixels or interior pixels independently (col 6, line 18 to col 7, line 5).

Bares and Flickner are analogous art, because they are from the same field of endeavor, namely Image Scanning and Recognition.

At the time of the invention, it would have been obvious for one skilled in the art to combine Bares's printing system with MICR toner printing and recognition, with Flickners's image recognition and processing system.

The suggestion or motivation for doing so would have been to allow for the image recognition system of Flickner to apply to MICR toner printing.

7. With respect to claims **8**, the examiner notes identical features to claim 1.

Therefore the explanation given above for claim 1 also holds for claim 8.

8. With respect to claims **14**, the examiner notes identical features to claim 1, except for the step of identifying of the print non-uniformities. The examiner notes that Flickner discloses the feature of the identifying pixel boundaries (col 2, lines 44-64 and col 3, lines 55-66), which the examiner interprets as being equivalent to a print non-uniformity. Therefore the explanation given above for claim 1 also holds for claim 14.

9. Claim **16** recites identical features as claim 1 except claim 16 is an apparatus claim. The examiner notes the Apparatuses of Bares (Fig 1) and Flickner (Fig 5). Thus, arguments similar to that presented above for claim 1 are also equally applicable to claim 16.

10. Claim **23** recites identical features as claim 1 except claim 23 is an apparatus claim. The examiner notes the Apparatuses of Bares (Fig 1) and Flickner (Fig 5). Thus, arguments similar to that presented above for claim 1 are also equally applicable to claim 23.

11. With respect to claims **4-7, 11-13, 15, 19-22 and 26-29** the examiner notes that the respective features of, in the reassigning step, increasing the values of edge pixels,

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decreasing the values of edge pixels, performing the reassigning step multiple times and reassigning multiple interior pixel values are obvious variations of the reassigning step disclosed in Flickner (col 6, line 18 to col 7, line 5). Therefore the features are covered by Bares in view of Flickner as obvious variations.

12. Claims **30-35** and **38-41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bares (US 5,057,936) in view of Flickner (US 4,791,676) in further view of West et al. (US 4,630,306).

13. With respect to claim **35**, Bares in view of Flickner disclose the method of claim 1, wherein a pixel can be defined as an edge pixel and wherein the digital value of the edge pixel can be reassigned.

Bares in view of Flickner do not disclose wherein the edge pixels are classified by direction and wherein the digital value of the edge pixel can be reassigned as a function of said direction.

West does disclose classifying edge pixels by direction, and assigning digital values on the basis of said direction (col 3, lines 18-23)

Bares in view of Flickner and West are analogous art, because they are from the same field of endeavor, namely Processing of Scanned Images.

At the time of the invention, it would have been obvious for one skilled in the art to combine Bares in view of Flickner's method of claim 1 with defined edge pixels and wherein the digital value of the edge pixel can be reassigned, with West's classifying of edge pixels by direction and wherein the digital value of the edge pixel can be reassigned as a function of said direction.

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The suggestion or motivation for doing so would have been to allow for the reassignment of edge pixels to be based on direction.

14. With respect to claims **30-34** the examiner notes identical features to claim 35. Therefore, the explanation given above for claim 35 is also valid for claims 30-34.

15. With respect to claims **38-41** the examiner notes that the respective features of, in the reassigning step, increasing the values of edge pixels, decreasing the values of edge pixels, performing the reassigning step multiple times and reassigning multiple interior pixel values are obvious variations of the reassigning step disclosed in Flickner (col 6, line 18 to col 7, line 5). Therefore the features are covered by Bares in view of Flickner as obvious variations.

16. Claims **2, 3, 9, 10, 17, 18, 24** and **25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bares (US 5,057,936) in view of Flickner (US 4,791,676) in further view Prior Art.

17. With respect to claims **2, 9, 17, 24** and **25**, Bares in view of Flickner disclose wherein the converting comprises converting to a binary digital bitmap and then reassigning the binary digital values to multi-bit digital values.

The examiner notes that although the conversion of image data to binary digital bitmap is not disclosed in Bares in view of Flickner, conversion of image data to binary digital bitmap was very well known in the art at the time of the invention. Likewise, reassignment or conversion from binary data to multi-bit data was very well known in the art at the time of the invention.

Therefore the examiner takes official notice that it would have been obvious for one skilled in the art to combine Bares in view of Flickner with well-known Prior Art such that the image data was converted to binary digital bitmap and then reassigned as multi-bit data.

18. With respect to claims **3**, **10**, **18** and **25**, Bares in view of Flickner disclose wherein the converting comprises converting to a multi-bit digital bitmap and then reassigning the multi-bit digital values to binary digital values.

The examiner notes that although the conversion of image data to multi-bit digital bitmap is not disclosed in Bares in view of Flickner, conversion of image data to multi-bit digital bitmap was very well known in the art at the time of the invention. Likewise, reassignment or conversion from multi-bit data to binary data was very well known in the art at the time of the invention.

Therefore the examiner takes official notice that it would have been obvious for one skilled in the art to combine Bares in view of Flickner with well-known Prior Art such that the image data was converted to multi-bit digital bitmap and then reassigned as binary data.

19. Claims **36** and **37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bares (US 5,057,936) in view of Flickner (US 4,791,676) in further view of West (US 4,630,306) in further view of Prior Art.

20. Claims **36** and **37** share identical features to claims 2 and 3 respectively.


Therefore the rejections stated above for claims 2 and 3 also hold for claims 36 and 37.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A. Schlack whose telephone number is (571)272-7954. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on (571)272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Scott A. Schlack

DOUGLAS Q. TRAN
PRIMARY EXAMINER
